

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A multi-level recording device comprising:
a substrate; and
a memory material supported by the substrate, the memory material including a
phase change alloy defined by: $\text{In}_x(\text{Sb}_n\text{Te}_{100-n})_{100-x}$ wherein x is 9-30 ~~8.5-30~~, n is
63-82.
2. (Cancelled)
3. (Previously Amended) The device of claim 1, wherein x is 9-15.
4. (Original) The device of claim 1, wherein x is 9-13.
5. (Original) The device of claim 1, wherein the phase change alloy is $\text{In}_9(\text{Sb}_{72}\text{Te}_{28})_{91}$.
6. (Original) The device of claim 1, wherein the phase change alloy is $\text{In}_{10}(\text{Sb}_{72}\text{Te}_{28})_{90}$.
7. (Original) The device of claim 1, wherein the phase change alloy is $\text{In}_{11}(\text{Sb}_{72}\text{Te}_{28})_{89}$.
8. (Original) The device of claim 1, wherein the phase change alloy has a peak with a
substantial FWHM at around $2\theta=24-26$ degrees of X-ray diffraction using $\text{CuK}\alpha$.
9. (Previously Amended) A multi-level recording device comprising:

a substrate; and

a phase change alloy supported on the substrate, the phase change alloy lacking silver and having a eutetic base alloy composition with at least one element for providing a sigma-to-dynamic range of less than 2%.

10. (Original) The device of Claim 9, wherein the phase change alloy has a peak with a substantial FWHM at around $2\theta=24-26$ degrees of X-ray diffraction using $\text{CuK}\alpha$.

11. (Original) The device of Claim 9, wherein the alloy has at least two phases during data recording, one phase being a major phase and the other phase being a minor phase.

12. (Original) The device of Claim 10, wherein the device is an optical memory disk.

13. (Previously Amended) The device of Claim 10, wherein the device has 7 or more detectable levels.

14. (Previously Amended) The device of Claim 10, wherein the device has at least 11 detectable levels.

15. (Currently Amended) The device of Claim 11, wherein the memory material comprises a phase change alloy defined by: $\text{M}_x(\text{Sb}_n\text{Te}_{100-n})_{100-x}$ wherein x is ~~9-30~~ 8.5-30, n is 63-82, where M is at least one main group metal.

16. (Cancelled)

17. (Previously Amended) The device of claim 15, wherein x is 9-15.

18. (Original) The device of claim 15, wherein x is 9-13.

19. (Original) The device of Claim 11, wherein the FWHM at around $2\theta = 24-26$ degrees of X-ray diffraction using $\text{CuK}\alpha$ is greater than that of $\text{AgIn}(\text{SbTe})$ at a corresponding concentration for M.